

Appl. No. 09/437,006
Amdt. dated May 6, 2004
Reply to Office Action of March 30, 2004

Amendments to the Claims

1. (Cancelled)

2. (Cancelled)

Claims 3-17 (Cancelled)

18. (Cancelled)

19. (Currently Amended) ~~A process, according to claim 18, wherein the first chemistry includes~~ A process of forming a semiconductor device, comprising:

forming at least one gate electrode layer over a gate oxide, the gate oxide being above a wafer surface;

providing a hardmask over a portion of the device layer;

using a plasma-etch of a first chemistry that includes one of HBr/Cl₂, HBr/HCl, or HBr/Cl₂/Cl₄, and also includes a selectivity booster, and selectively etching into the device layer to form a pillar structure having at least one sidewall;

after using the first chemistry, using a plasma-etch of a different second chemistry that includes HBr and nitrogen and selectively etching into the device layer to form a pillar structure having at least one sidewall, the second chemistry including nitrogen in an amount less than about ten percent of gas flow of the second chemistry, wherein the amount of nitrogen is maintained to minimize notching in the pillar structure without affecting selectivity; and

terminating the use of a plasma-etch of the second chemistry in response to reaching the gate oxide.

20. (Currently Amended) A process, according to claim 19, ~~claim 18~~, wherein the first chemistry includes HBr/Cl₂ and He-O₂.

21. (Cancelled)